

# Canon

## AUTO ZOOM 814

### ELECTRONIC

English Edition

On the Threshold of Professional Movies



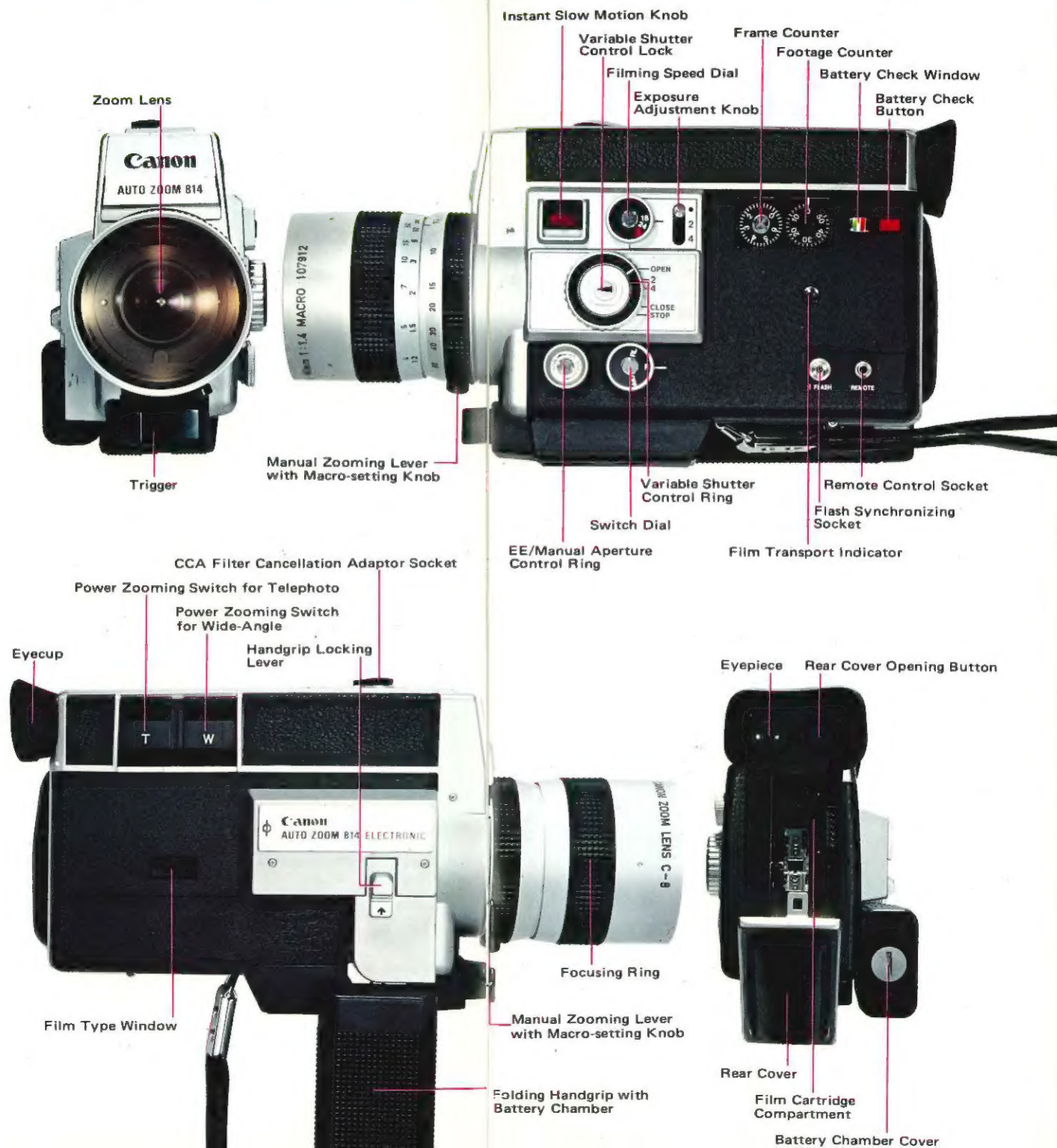
## 8 Main Features of the Auto Zoom 814 Electronic

- 1** Built-in 8-times zoom lens with a fast speed of f/1.4. Designed by computer to eliminate aberration, ghost and flare while maintaining excellent resolution.
- 2** CdS photocell through-the-lens light metering combines with a servo motor for electric eye automatic aperture control. All-silicon transistorized electronic circuit responds quickly with stable performance.
- 3** Four filming speeds: 18 fps, 24 fps, slow motion at 40 fps or single frame. Slow motion instantly with one touch because the built-in electric eye automatically compensates exposure.
- 4** Macro-shooting for super close-ups to 6.5" (16.5 cm) from the subject to the film plane. No additional accessories or complicated techniques are needed for titling, copy work, nature photography or other close-ups.
- 5** Variable shutter control to change shutter opening angle from 0° to 150°. Professional fade-ins and fade-outs simply by turning a dial.
- 6** Bright viewfinder for easy, accurate focusing. Even dark or faintly distinguishable subjects can be seen clearly.
- 7** Timer accessories allow unmanned photography with electric eye exposure control. A short-range timer is used for single frames. A self-timer shoots continuously for 10 seconds after a 10-second interval. With the Time Lapse Programmer, specified shooting intervals over a period of time can capture the stages of motion.
- 8** Built-in electronic flash contact for synchronization of single frame shooting. With remote control and magnetic trigger system, flash-synchronized shooting is easy.





# Nomenclature



## Unique Performance of Each Part

### Power Zooming Switches

To zoom, press either of the power zooming switches. The "T" switch changes the magnification for a telephoto effect. The "W" switch changes the magnification for a wide-angle effect. Full zooming time for both switches is approximately 7 seconds.



### Zooming Ring

For zooming either more rapidly or more slowly than the 7 second power zoom, turn the zooming ring. This technique requires practice for complete control.

### Instant Slow Motion Knob

When this knob is pressed, filming speed immediately changes from 18 or 24 fps to a high-speed of 40 fps. Releasing the knob instantly returns the filming speed back to normal. With instant slow motion, speed changes can easily add interest to any film.



### Variable Shutter Control

By turning the variable shutter control ring, the angle of the shutter leaves can be changed from 0° to 150°. A four-step scale is printed on the body to show how far the shutter angle has been changed. The control permits fading and helps to minimize blurring of fast moving subjects.

### EE/Manual Aperture Control Ring

When the ring is pulled out, the Auto Zoom 814's aperture can be set manually. Manual aperture setting is especially effective when shooting subjects against the light or when creating a low level lighting effect. By pushing the ring back in, the Auto Zoom 814 resumes electric eye exposure control.

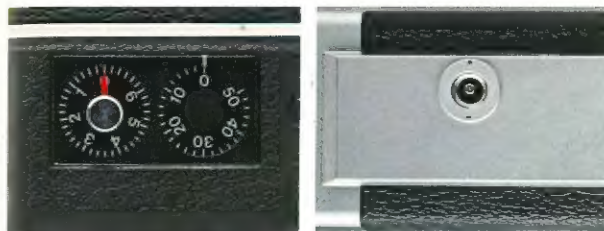


### Macro-setting Knob

Pull out the Knob found on the end of the zooming lever, and rotate the zooming ring to its MACRO position. Close-ups of birds, insects, flowers or titles are possible without any other lens or accessory.

### Frame Counter Set Knob

One full rotation of the counter measures the exposure of 72 frames, or approximately one foot of film. To set the counter, rotate the counter knob and set the indication needle to "0". The counter is very helpful when fading or when shooting single frames.



### CCA Filter Cancellation Adaptor

Since the Auto Zoom 814 uses artificial light color film, it employs a CCA filter to adjust the color temperature of daylight. The filter is cancelled when the cancellation adaptor is inserted into the cancellation socket.

### Battery Check

By pushing the battery check button, the power level can be read in the battery check window. You can easily monitor battery levels with just one touch.



### Handgrip with Battery Chamber

The Auto Zoom 814's folding handgrip also serves as a battery chamber. It holds four standard AA penlight batteries which power the zooming, film drive, and electric eye, automatic aperture control.

### Trigger

This is more than just a simple ON-OFF switch. The Auto Zoom 814's trigger works in two steps. With light pressure it activates the exposure meter circuit. With firm pressure the trigger activates the electric film drive. You start shooting immediately.



### Remote Control Socket

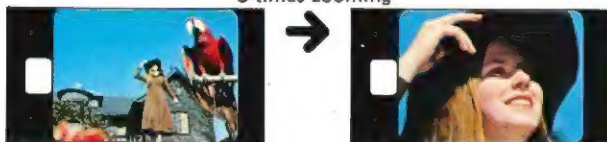
Remote control shooting with automatic aperture control is operated by switches inserted into the remote control socket. Remote Switch 60 has a 60cm remote control cord for general shooting and to avoid blurring in single frame shooting. The optional Remote Switch 3 has an 8 meter remote control cord for use in nature photography.



## One Lens Does Everything

The Canon Auto Zoom 814 Electronic has an  $f/1.4$  lens that is really three lenses in one. First, it is a standard lens. Computer designed for optimum light transmission, it incorporates eleven unique glass elements compounded of several rare earths. This lens is so bright that it can shoot at a minimum of  $f/32$ , giving you a fine-grain picture with precise image reproduction. And because it features the brightness of  $f/1.4$ , the 814's lens is a perfect match for low illumination tungsten-type ASA 160 film. Now you can shoot indoors without hot, glaring movie lights—to make your home movies much more spontaneous and enjoyable. Next it is a zoom lens. With a focal length of up to 60mm, the Auto Zoom 814's lens offers a zoom ratio of 8:1 to put you right on top of any subject. Since the zoom is activated either manually or with the Auto Zoom 814's power zooming switches, the speed and the amount of zoom can be closely controlled to complement the subject you are filming. Finally, the Auto Zoom 814's lens is macro-lens. Without any accessories or sophisticated techniques, you can shoot as close as 16.5cm from your subject to the film plane. Nature photography, titling, subjects that you

8-times zooming



Macro-shooting

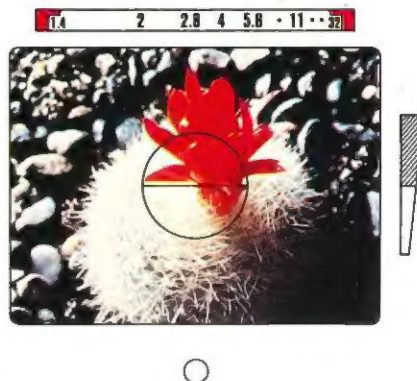


want to examine closely—all can be brought into focus, adding dramatic new possibilities to your home movie photography. Because the Auto Zoom 814 Electronic has three lenses in one, you can easily combine both zooming and macro-shooting for exciting effect. By setting the focusing ring at infinity, you can begin a scene focused on a nearby object then gradually shift the focus to the rest of the scenes then zoom up on a special subject. This technique is much more entertaining than conventional focused zooming.

## A Viewfinder that Helps

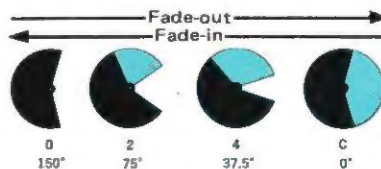
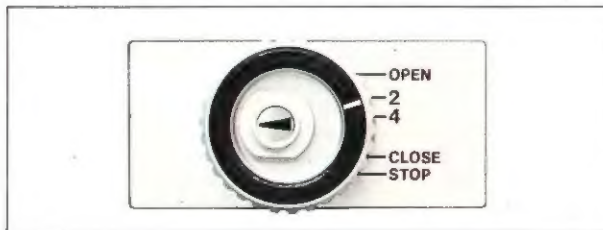
The Auto Zoom 814 Electronic features a viewfinder with the advantage of a reflex camera. You see exactly the same image that your lens does, so the composition of each shot is easy and without guesswork. Focusing is easy, too, with a precise prism screen rangefinder. And once the Auto Zoom 814 is focused, it stays focused, even during zooming. The Auto Zoom 814's viewfinder, however, is more than just a viewfinder; it is an information center. It provides meter information, including a diaphragm scale, meter needle, and warning marks for over-exposure and under-exposure. You know the exact aperture

opening being set by the automatic aperture control. The viewfinder also includes the film end caution lamp that lights approximately 2.5 feet before the film's end. This lamp keeps you from shooting after your film has run out.



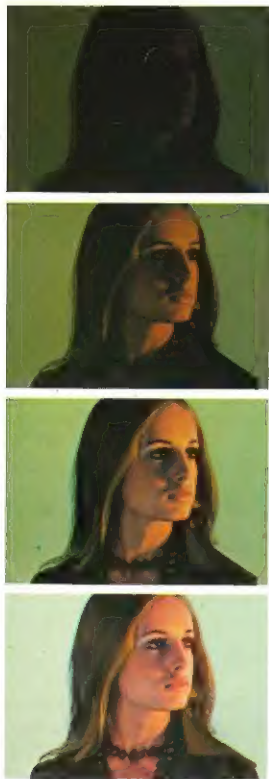
## Variable Shutter Control

By changing the open angle of the shutter's semicircular leaves, you can control the exact amount of light exposing each frame of film. This means that while the lens aperture remains constant, the angle of the shutter leaves can open or close to brighten or darken the exposed image. Fade-in or fade-out can be exactly controlled by the variable shutter to produce professional quality introductions, scene changes, and endings. The Variable Shutter Control has five different markings: OPEN, 2, 4, CLOSE, STOP. At OPEN, the shutter angle is open a full  $150^\circ$  degrees to allow all the light admitted by the lens aperture to register on the film. At 2, the shutter angle is  $75^\circ$  and half the light coming through the lens is allowed to strike the film. At 4, the shutter angle is  $37.5^\circ$  and one-quarter of the light is admitted. At CLOSE, the shutter angle has completely closed to  $0^\circ$  and no light is exposed on the film. At STOP, the film stops automatically to prevent needless waste of film footage.





Fade-in



Fade-out



### Filming Speeds and Slow-Motion

The Auto Zoom 814 Electronic has three different filming speeds: 18 frames per second, 24 fps and 40 fps. The slowest filming speed, 18 fps, is the standard filming speed for Super 8 movies. To set this speed, simply turn the filming speed dial to "18" until it clicks into place. Because most Super 8 projectors are set to project at a speed of 18 fps, films shot at this speed should appear very natural and life-like. The middle filming speed, 24 fps, is generally used in the following special cases; when making a sound film, when zooming, to avoid blur while panning, to slow and soften motion. Films which are shot at 24 fps and projected at the standard 18 fps will show action taking place at approximately 3/4 the speed of normal action. People in motion appear to float slightly, and rapid action is somewhat easier to follow. Both zooming and panning are considerably more pleasing at this speed. The fastest filming speed, 40 fps, is used for slow-motion. When you press the instant slow-motion knob while filming at either 18 fps or 24 fps, the filming speed immediately increases to 40 fps.

Slow-motion



## SPECIFICATIONS

**Type:** 8mm Super 8 movie camera

**Frame Size:** 5.8 x 4.2mm

**Picture Format:** 5.4 x 4.0mm

**Lens:** f/1.4 with focal length of 7.5mm—60mm.

**Zooming ratio:** 8:1. 19 elements in 13 components. Inner diameter 58mm. Outer diameter 60mm.

**Viewfinder:** SLR type combined with prism screen rangefinder. Meter information (diaphragm scale, meter needle, over/under-exposure warning mark) and film end signal built-in. Eyepiece is adjustable (−3 to +2 diopter), with Eyecup.

**Metering System:** Through-the-Lens Metering with CdS photocell and servomotor controlling diaphragm, coupled to film and filming speeds.

**Light Metering Range:** From ASA 400, f/1.4, 18 fps, shutter angle "OPEN", to ASA 16, f/32, slow motion, shutter angle "4".

**Film Speed:** Automatically set by inserting the film cartridge.

Artificial Light Film: ASA 25, 40, 64, 100, 160, 250, 400.

Daylight Film: ASA 16, 25, 40, 64, 100, 160, 250

**CCA Filter:** Color Conversion A (CCA) filter built-in for using artificial light film in daylight. Cancelled by inserting CCA filter cancellation adapter or lighting unit to CCA filter cancellation adapter socket. Automatically removed by inserting the daylight film cartridge.

**Filming Speed:** 18 fps, 24 fps, single frame and instant slow motion (40 fps).

**Variable Shutter Control:** 0°—150°, continuously. Fading is possible with this mechanism.

**Manual Aperture Control:** With EE/manual aperture control ring.

**Power System:** Automatic filming and zooming with precise micromotors.

**Power Source:** Four 1.5V penlight (AA size) batteries, contained in handgrip. Powers filming system, zooming system and exposure meter.

**Zooming Speed:** About 7—8 sec. (entire range).

**Manual Zooming:** With zooming ring, rotation angle about 120°.

**Running Ability:** 10 cartridges at normal speed and temperature with new batteries. Single frame with new batteries, one cartridge, more or less according to time and weather conditions.

**Footage Counter:** Counts exposed footage. Automatically resets by removing film cartridge.

**Frame Counter:** 72 frames in one rotation (1 ft.), 2 frames per scale. With adjustable indication mark.

**Battery Check:** With button and charge-level window.

**Folding Handgrip:** With battery chamber.

**Sockets:** For remote control, and for flash synchronized to single-frame shooting.

**Remote Control:** Possible with Remote Switch 60 or Remote Switch 3.

**Switch Dial:** Safety switch, with running lock.

**Film-End Caution:** Orange warning lamp, lights up in the viewfinder 2.5 ft before film-end.

**Safety Devices:** Over/under-exposure warning marks, shutter lock, film transport indicator.

**Macro-Shooting System:** With the macrosetting knob. Close-ups to 16.5cm (6.5") from film plane indicator; picture area 33mm x 45mm. (1-19/64" x 1-49/64").

**Time Control and Interval Shooting:** For capturing the stages of motion shooting with Interval Timer E or Time Lapse programmer.

**Self-Timer:** 10 seconds shooting with Self-Timer E.

**Accessories:** Lens Hood W-60, 58mm Filter, 58mm Close-Up Lens 450, 240 C-8, Remote Switch 60, Remote Switch 3, Lens Cap, Eyepiece Cover, CCA Filter Cancellation Adapter, CCA Filter Cancellation Adapter Socket Cover, Cine Projector S-400, \*Timer Lapse Programmer, Interval Timer E, Self-Timer E, and Extension Cord E1000. (\* available upon special order.)

**Size:** 224 x 118 x 70mm (8-13/16" x 4-5/8" x 2-3/4").

**Weight:** 1,550g (3 lb. 6-11/16 oz.).

Subject to change without notice.



By releasing the knob, filming speed immediately returns to the original speed of either 18 fps or 24 fps. With this one-touch action, slow-motion shots may be easily interspersed with normal action, and this variety will make all your films more interesting. This high filming speed is also useful in avoiding blur when panning, or when filming while walking or riding.

### Time Interval Control Shooting

The Auto Zoom 814 Electronic can be used with any one of three different timing accessories to expand the possibilities for unmanned automatic aperture controlled Super 8 movie photography. Each of these timers uses a special magnet release mechanism which saves the Auto Zoom 814's batteries from unnecessary power drain. And each of the timers is very easy to operate. Just plug them into the Auto Zoom 814's remote control socket and set the switch dial to the "RL" position.

Self timer E activates a ten-second period of continuous shooting, beginning ten seconds after the timer has been turned on. The timer will repeat this cycle if the timer's shutter release button is pressed again. It is not necessary to reset the Self-Timer E for the next shooting interval. With the Self-Timer E you can include yourself in your own movies.

Interval Timer E is used for continuous single frame shooting. Any time interval between frames, from 1 second and 60 seconds, can be set on the timer's dial. Continuous interval shooting will continue until battery power is completely exhausted. This timer is specifically designed to photograph long and continued change in a subject. Sunrise, sunset, a blooming flower, the movement of clouds—each can be projected later as rapid movements in a fascinating compression of time.

In addition, it permits control of shooting only at those specific times you wish over a special period of time. If you wish to shoot single frames only at night or in daylight, or during any given length of time, you have complete control over your unmanned photography. Time Lapse Programmer incorporates the functions of the Interval Timer E and the Self Timer E.



### Accessories

#### Close-up Lenses C-8

Canon's exclusive 58mm Close-up Lenses, the 450 C-8-2 and the 240 C-8, put zooming into close-up photography. Both lenses completely compensate for chromatic aberration, to give you distortion-free zooming in titling, copy work, or nature photography.

### Filters

Canon offers thirteen different filters; seven for use with color film, six for use with black and white. They each compensate for a particular kind of light. However, since the Auto Zoom 814 Electronic uses a through-the-lens metering system, the aperture will always be set automatically to the proper opening no matter which filter is used.

### Remote Switches

The Remote Switch 60, with a 60cm (2') remote control cord, and the Remote Switch 3, with an 8 meter (26') remote control cord, allow operation of the Auto Zoom 814 Electronic from a distance.

When any vibration of the camera would spoil your shot, use a vibration-free Remote Switch.





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